

APPENDIX A – Marked up copy of claims showing insertions and deletions

1. (Amended) A method of identification of primary events in seismic data, the method comprising:

sorting the data by frequency wherein at least some non-primary events are separated from primary events, wherein a frequency sorted gather of data results;

attenuating in the frequency-sorted gather amplitudes above a pre-selected base amplitude, wherein attenuated amplitudes result;

applying a coherency filter to the events, wherein coherent events are identified; and
replacing [with amplitudes from the coherent events] the attenuated amplitudes in the frequency-sorted gather with amplitudes corresponding to the coherent events.

13. (Amended) A method of identifying primary events in seismic data, the method comprising:

[applying a coherency filter to the seismic data;]

sorting the seismic data according to [an event characteristic having a tendency to separate primary from non-primary event] frequency; [and]

applying a coherency filter to the seismic data; and

selectively attenuating events in the seismic data, wherein the selectively attenuating is dependent upon the [characteristic] frequency and [the] coherency of [the] events identified by the coherency filtering.